



# **UQAT Forest Research Institute: Overview of research expertise and contributions to NEWFORESTS**

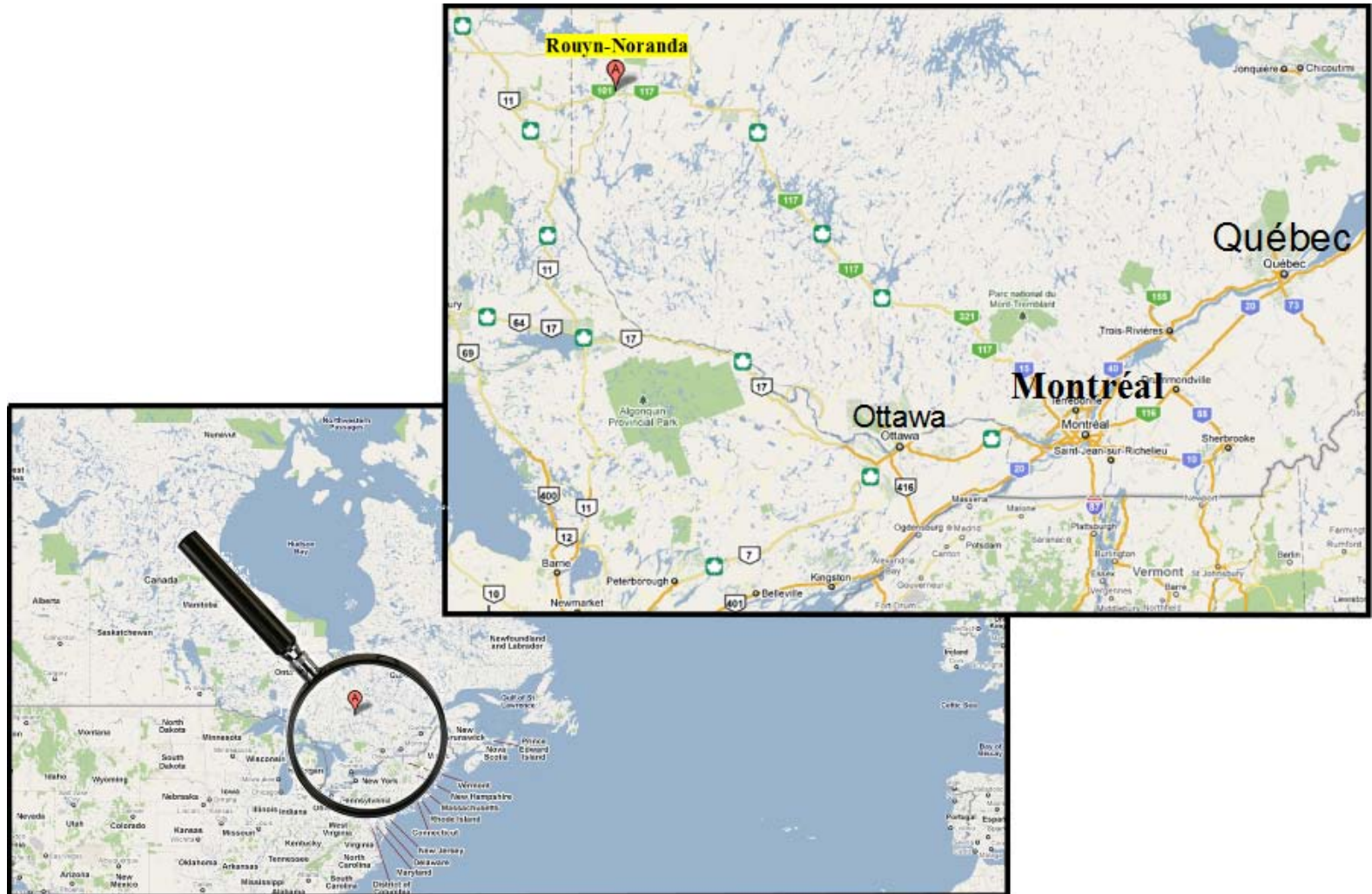


# Where is «Abitibi-Témiscamingue»?



- Some facts:
  - Area : 65 143 km<sup>2</sup>  
(Catalonia = 31 950 km<sup>2</sup>)
  - Population : 145 835  
(Catalonia = 7 535 251)
  - 97% French-speaking  
(English = 2%, Algonquin 1%)

# How remote? 512 km from Montreal..



# What is «Abitibi-Témiscamingue»?



- Some facts:
  - Colonised mostly between 1910-1940
  - Main natural resources: forestry and mining
  - Unemployment rate = 5,2% (France = 10,9%, Spain = 25,8%)

# What is there to see?



■ Coll de Nargó  
(eleventh century)



■ Rapide-Danseur (1942)

# Forestry in Abitibi-Témiscamingue



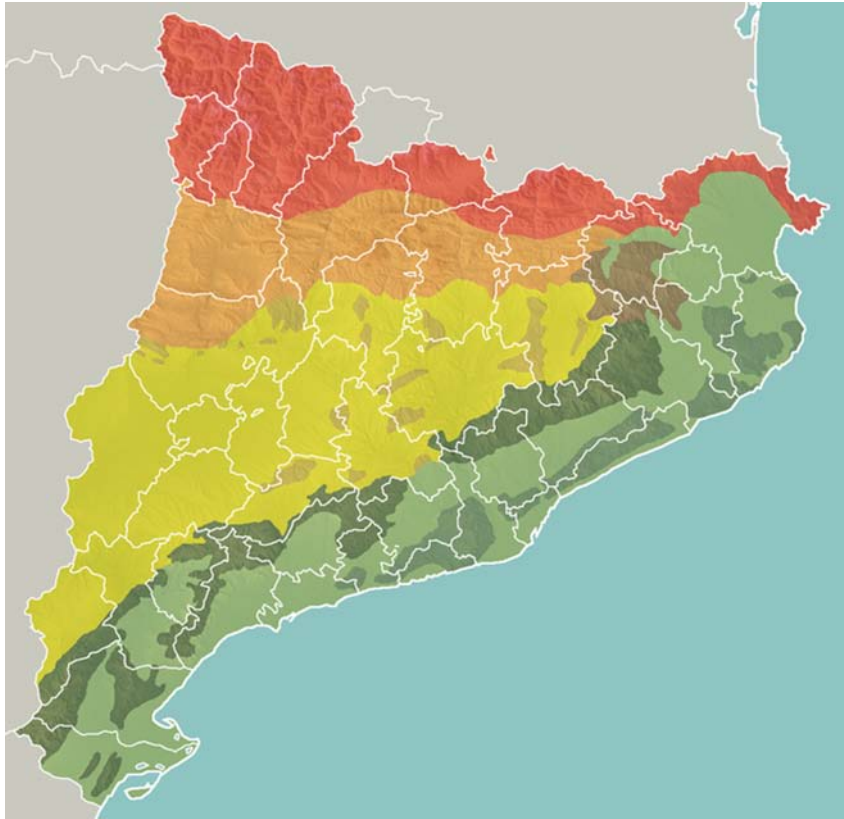
**Black Spruce**  
*(Picea mariana)*



**Jack Pine**  
*(Pinus banksiana)*

- Some facts:
  - Up to 450 000 m<sup>3</sup> harvested / year
  - 75% of this volume in coniferous species
  - 5 215 direct jobs in 2010

# Importance of logging in Québec



- Approximately 300 000 ha (3 000 km<sup>2</sup>) of mature coniferous forests / year
  - ▣ 10 years ~ area of Catalonia (31 950 km<sup>2</sup>)



# A few pictures...





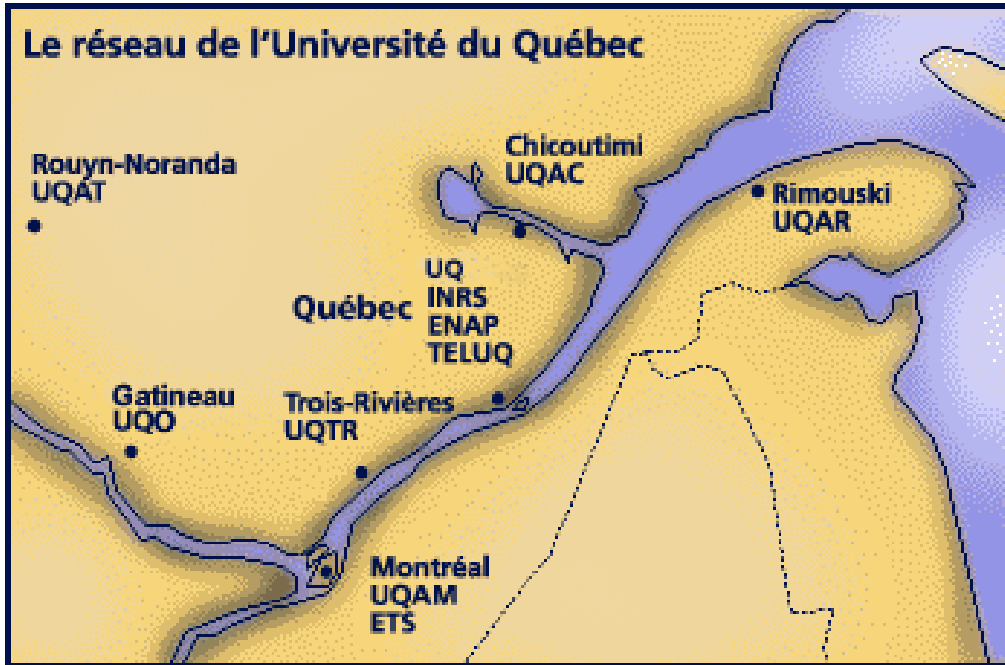
# A few pictures...



# What is «UQAT»?



Université du Québec  
en Abitibi-Témiscamingue



- “Université du Québec” network
  - ▣ Created in 1968
  - ▣ 6 main universities
  - ▣ 87 000 students

- Main goals:
  - ▣ Increase access to higher education
  - ▣ Contribute to the development of regions

# Where is «UQAT»?



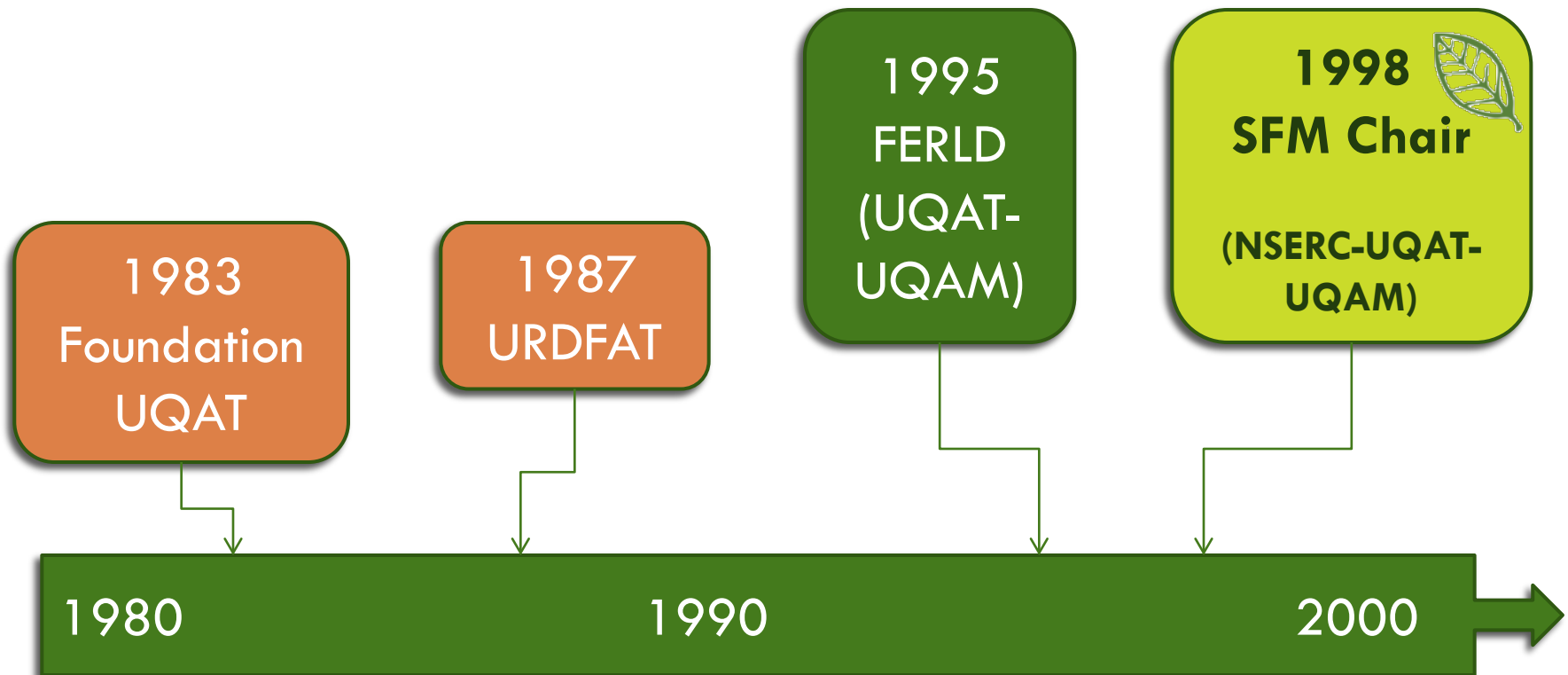
Université du Québec  
en Abitibi-Témiscamingue



- Rouyn-Noranda (main campus)
  - 1530 students (vs 57 000 in UQ network)
  - Research grants : 213 000\$ per professor (vs 89 000\$)



# A Brief history



# What is an industrial chair?

- Funded jointly by NSERC and industry
- Provides funding for the salary of the Chairholder, general expenses related to the Chair's program of research
- Assist universities in building critical mass required for a research endeavour of interest to industry
- Provide an enhanced training environment for graduate students by exposing them to significant ongoing interactions with the industrial partner(s)



# Who is the Chairholder?

- Joined UQAM as a professor in 1985
- Research themes:
  - ❖ Historical reconstitution and characterization of natural and anthropic disturbance regimes
  - ❖ Find out how stand and landscape silvicultural operations can emulate natural disturbances
- >300 publications to date...



# Mission

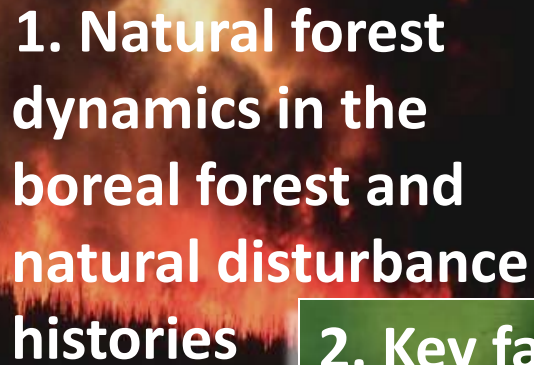
The mission of the Chair is to assure the development and quality of :

- ✓ **RESEARCH**
- ✓ **TRAINING** and
- ✓ **TECHNOLOGICAL TRANSFER**

Necessary for the development and application of strategies and practices of **SUSTAINABLE FORESTRY MANAGEMENT**

# Research themes

**1. Natural forest dynamics in the boreal forest and natural disturbance histories**



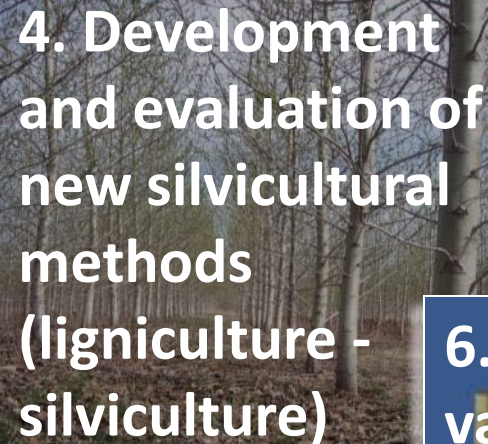
**2. Key factors for biodiversity conservation in the boreal forest**



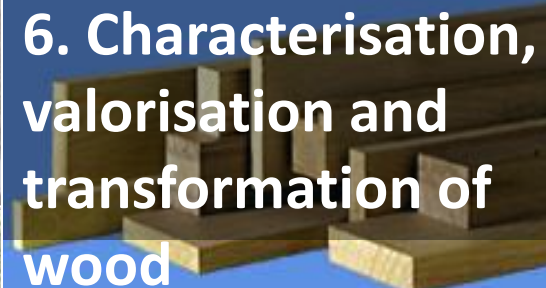
**3. Forest productivity and resilience**



**4. Development and evaluation of new silvicultural methods (ligniculture - silviculture)**



**6. Characterisation, valorisation and transformation of wood**



**5. Development and testing of sustainable forest management strategies**





# UQAT Researchers



Yves Bergeron



Suzanne Brais



Annie Desrochers



Brian Harvey



Louis Imbeau



Ahmed Koubaa



Francine Tremblay



Osvaldo Valeria

# UQAT Researchers



Igor Drobyshev



Nicole Fenton



Hugo Asselin



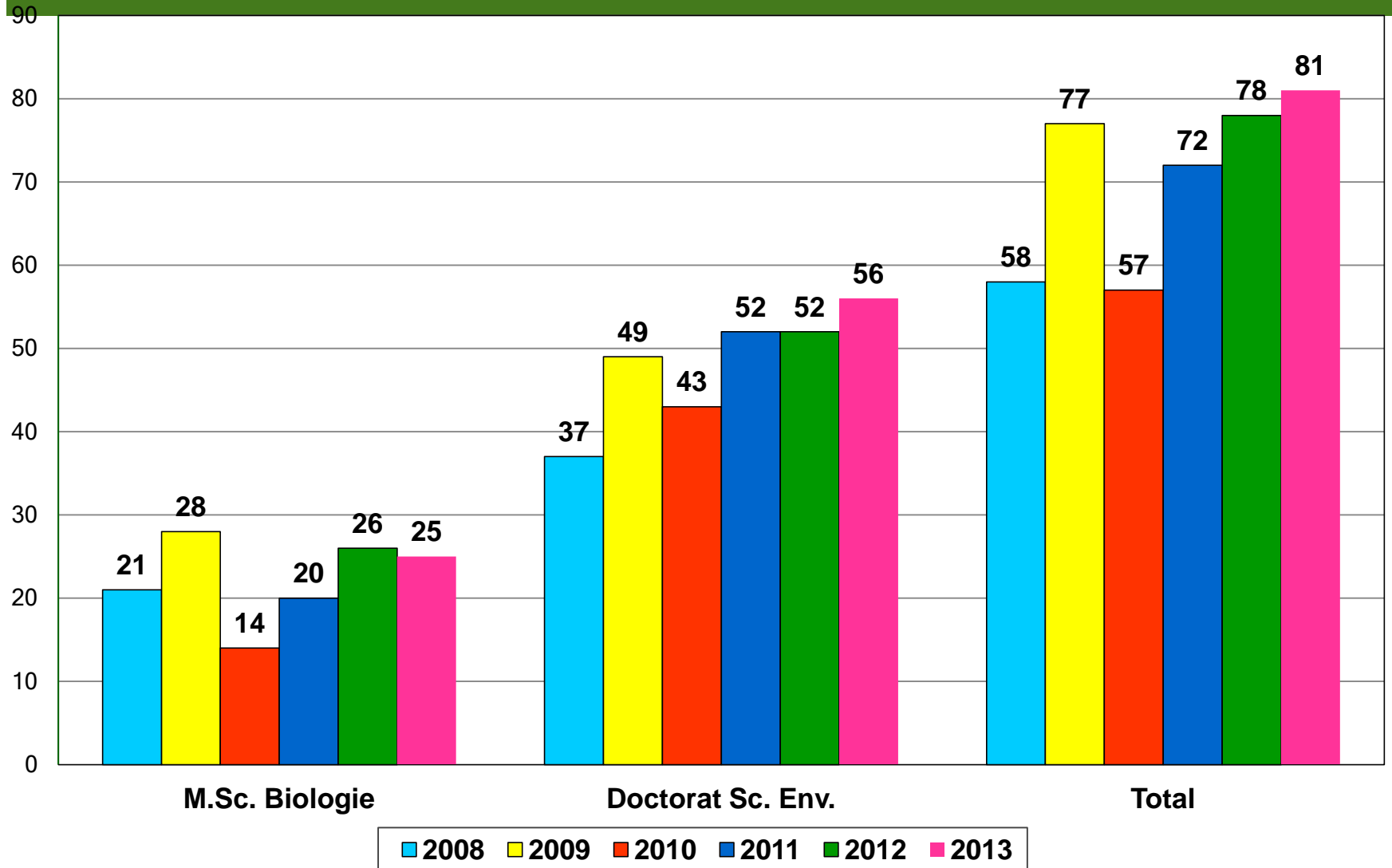
Marc Mazerolle

# Research programs offered

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- UQAT
  - ▣ Ph.D. in environmental sciences
  - ▣ M.Sc. in biology
  - ▣ Professional M.Sc. in sustainable forest management

# M.Sc. and Ph.D. Students 2008 to 2013





# Precious Industrial Partners

- Tembec
- Norbord Industries Inc.
- Scierie Landrienne
- Matériaux Blanchet Inc.
- Resolute Forest Products
- Commonwealth Plywood Inc.
- Eacom Timber Corporation
- Québec Ministry of Natural Resources and Wildlife
- Regional conferences of Abitibi-Témiscamingue and North-of-Québec regions
- Canadian Forest Service
- Sustainable Forest Management Network
- Union of wood producers in Abitibi-Témiscamingue
- Regional agencies of private forests for the valorisation of wood products in A-T
- Barrette-Chapais Ltd and Chantier Chibougamau



Meeting on research priorities 2008

**Tembec**

 **Norbord**

 Matériaux Blanchet Inc.

 **CHANTIERS  
CHIBOUGAMAU**

 **Domtar**

 **abitibi  
bowater**

 **SCIERIE  
LANDRIENNE INC.**

 **Smurfit-Stone**

 **Barrette**  
BARRETTE-CHAPAIS LTÉE

 **CRSNG  
NSERC**

 **Université du Québec  
en Abitibi-Témiscamingue**

 **UQÀM**

Université du Québec à Montréal

*Ressources naturelles  
et Faune*  
**Québec** 

*Fonds de recherche  
sur la nature  
et les technologies*  
**Québec** 



 **Développement  
économique Canada** **Canada Economic  
Development**  
**Canada** 

 **Ressources naturelles  
Canada** **Natural Resources  
Canada**  
**Canada** 

 **Fondation**  
de l'Université du Québec  
en Abitibi-Témiscamingue

 **CONFERENCE  
REGIONALE  
DES ELUS  
DE L'ABITIBI-  
TEMISCAMINGUE**

 **Réseaux  
de centres  
d'excellence**

**RÉSEAU DE GESTION  
DURABLE DES FORÊTS**



**SUSTAINABLE FOREST  
MANAGEMENT NETWORK**

**Donner les moyens de réussir** **UQÀM**  
FONDATION

 **Fondation canadienne pour l'innovation  
Canada Foundation for Innovation**

 **VRQ**  
Valorisation-Recherche Québec

 **cef**  
Centre d'étude de la forêt

 **Association forestière  
de l'Abitibi-Témiscamingue inc.**

 **CREAT**  
Conseil régional  
de l'Aménagement  
de l'Abitibi-Témiscamingue



# Technologic transfer

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- Research seminars (all in videoconference)
- Annual regional meetings of the SFM Chair
- International Symposiums (e.g. ecological services of deadwood, international symposium on root development)
- Field visits of study sites
- Technology transfer articles in magazines
- Research notes



# Contribution to NEWFORESTS

- European students and researchers are welcome!
  - Field research station
  - Student residences



# Contribution to NEWFORESTS

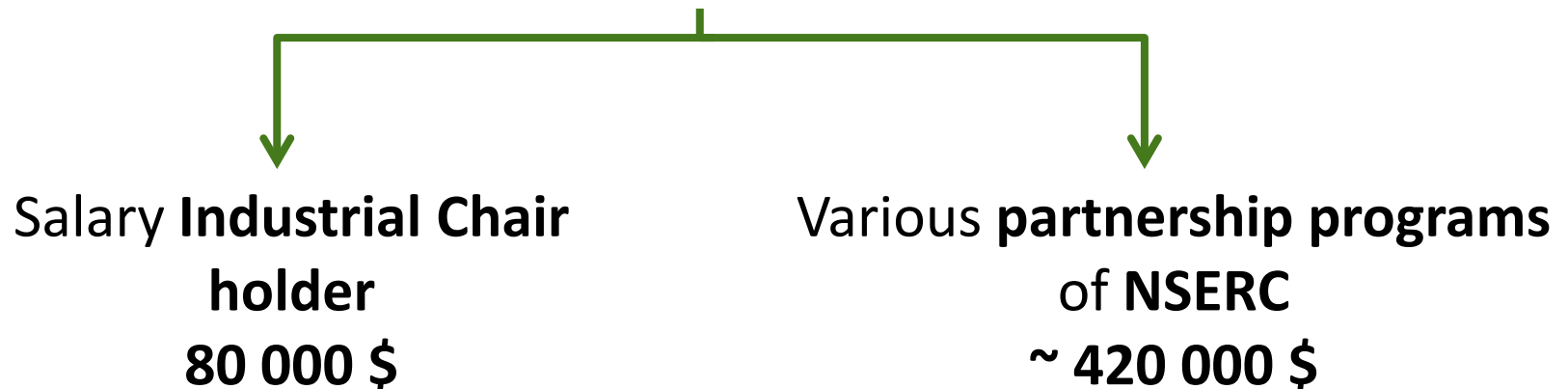
- All UQAT researchers may « fit » into some working packages... New examples:
  - Bonet – Brais
  - Camprodon – Imbeau
  - CREAM – Mazerolle
  - More to come!



# Research funding

Annual contribution of **industrial partners to Universities**  
**~500 000 \$**

(contribution to **Research** from **harvesting royalties**  
to the Ministry of Natural Resources and **direct contributions**)



# How research funds are allocated?

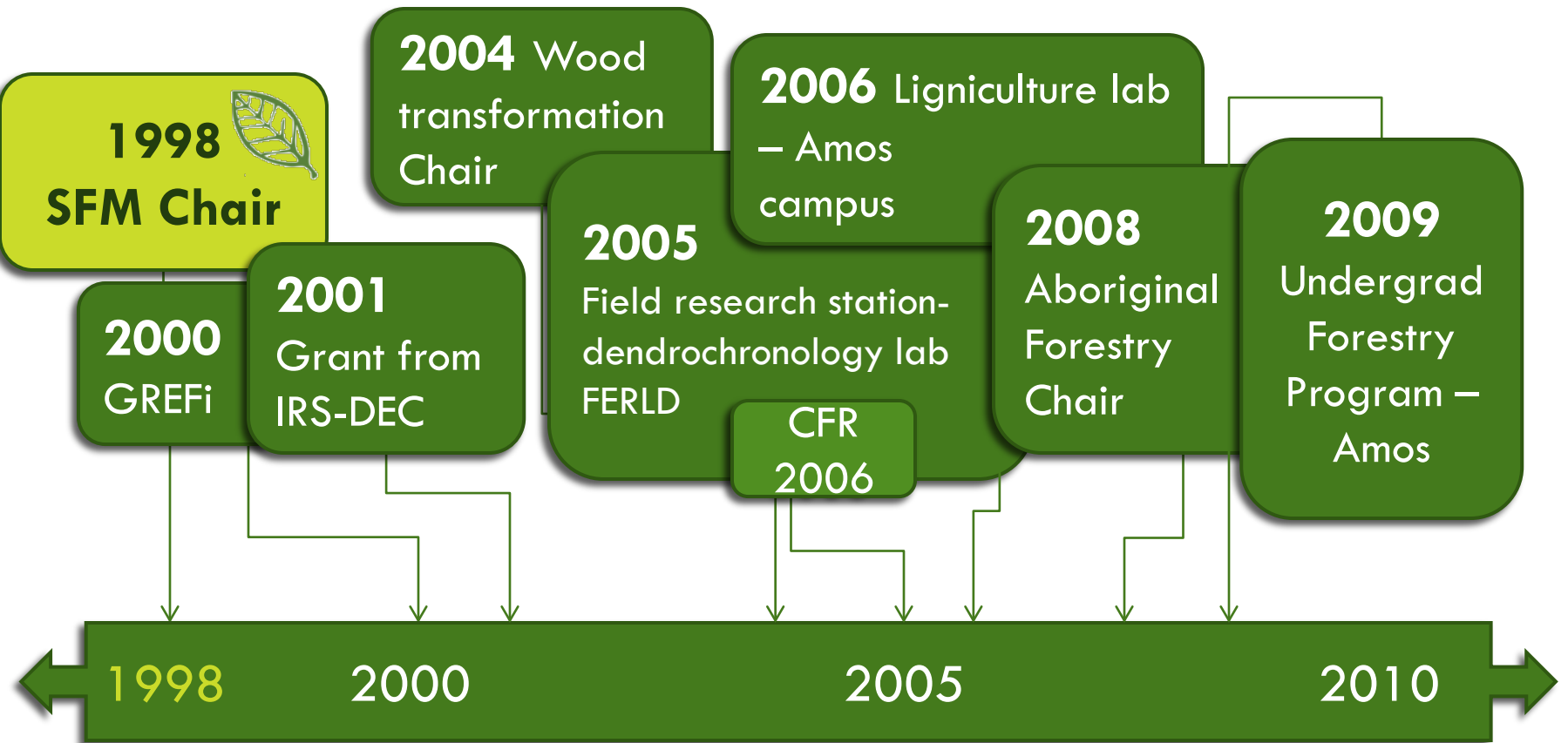
- 1** **Evaluation of relevance** of research proposals by **all partners** (industry, Provincial and regional government levels)
- 2** **Reception and prioritisation** of projects by the **SFM Chair scientific committee**  
(3 from industries, 1 from private forest owners, 2 from provincial and 2 from regional governments)
- 3** All **given funds** are **conditional to the obtention** by researchers (or students) of an **equivalent grant** in a peer-reviewed grant application program (**NSERC, FRQNT**).

# Main funding sources

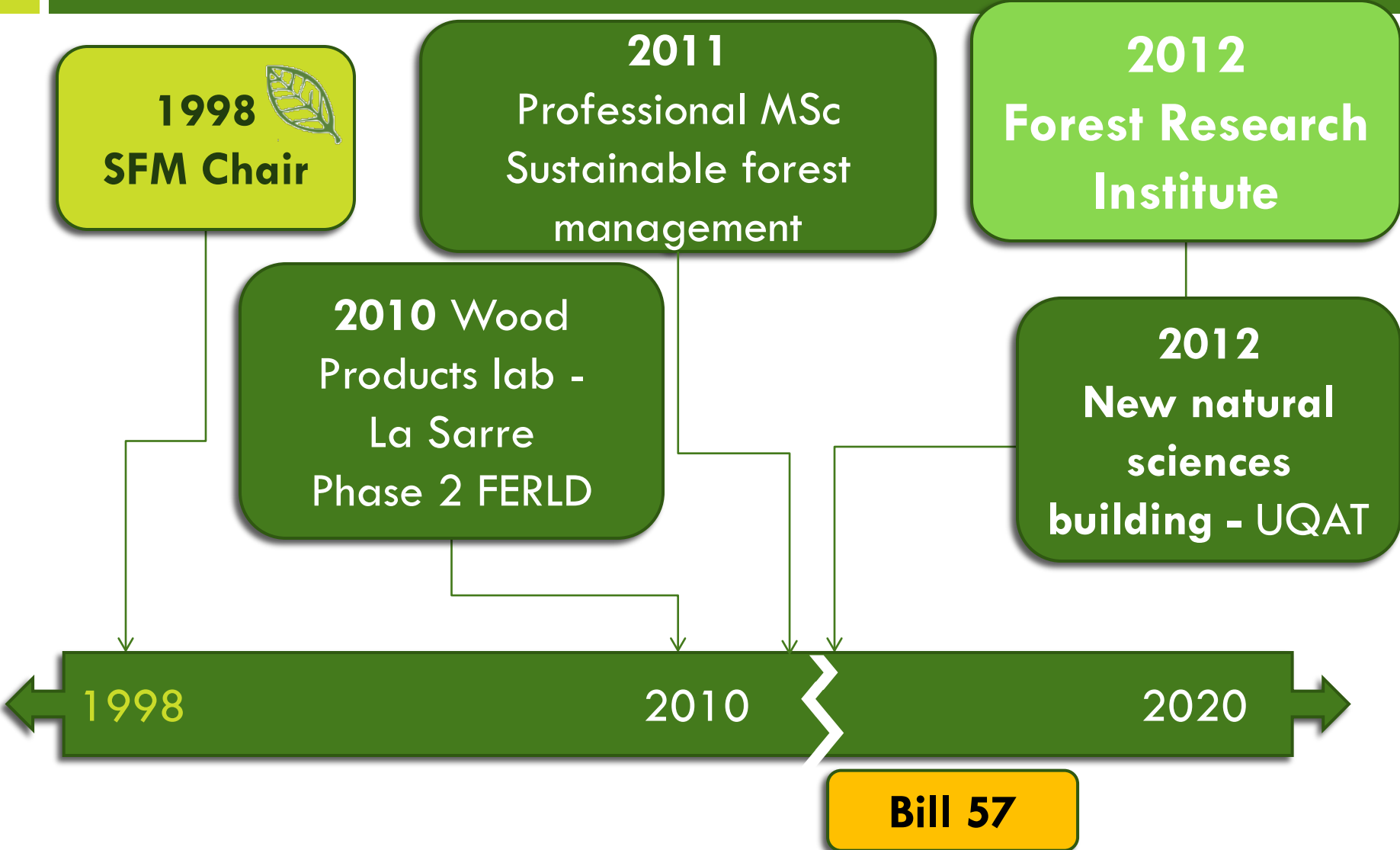
- NSERC (Natural Sciences and Engineering Research Council - Canada)
  - Industry-Driven Collaborative Research and Development Program
  - Training in industry programs (Industrial Postgraduate Scholarships)
  - Discovery Grants Program
- FRQNT (Research in natural sciences – Québec)
  - Partnership in forest management
  - Team research project program
  - New researchers start-up program



# Brief history



# Future of forest research at UQAT



# What about me?



## □ MAIN RESEARCH THEMES

- Evaluate the importance of snags, tree cavities as well as coarse woody debris recruitment for various taxa (birds, mammals)
- Effects of clearcut logging, partial cuts and intensive silvicultural approaches on game species (e.g. marten, hare, grouse)